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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,863	06/26/2003	Bong-Hwoan Choi	1293.1758	1435

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EXAMINER

LAMB, CHRISTOPHER RAY

ART UNIT	PAPER NUMBER
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2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/603,863	CHOI, BONG-HWOAN	
	Examiner	Art Unit	
	Christopher R. Lamb	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 5-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 4th, 2007 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1 and 5-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 1:

The subject matter that was not described is "detecting the optical disc as a fashion disc type having a non-circular shape."

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A fashion disc is defined in paragraph 5 of the specification as "having diameters of 8 cm and various shapes, such as a star, a flower, or a business card shape as shown in FIGS. 1B through 1D."

Applicant's apparatus, at the time the application was filed, was capable of detecting discs having diameters of 8 cm. However, the Examiner cannot find any mention in the originally filed application of detecting that the disc has "a non-circular shape."

An amended claim must be supported in the specification through express, implicit, or inherent disclosure (see MPEP § 2163).

Detecting that a disc has a non-circular shape is not expressly disclosed in the specification: it's not mentioned at all.

It is not implicit in the original disclosure, because the originally disclosed definition of a fashion disc simply stated that it had "various shapes." The Examiner has considered the fact that the three illustrations of fashion discs show only non-circular shapes (see Figs. 1B, 1C, and 1D). However, it is clear from paragraph 5 that the three shapes illustrated were merely examples and not meant to be an exhaustive list. It is also apparent from the prior art of record that circular 8 cm discs were well known in the art: if the apparatus was capable of distinguishing these from non-circular 8 cm discs, it is something that would merit express mention.

Furthermore, the motivation for the invention given in paragraph 6 (that "the non-standard configuration of the fashion disc...causes very serious noise and a failure of a lead-in operation") applies equally well to circular and non-circular discs (compare

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Okamoto et al., US 5,696,744, column 1, lines 25-40). Thus detecting non-circular discs is not implicit there either.

Finally, it is not inherent to the original disclosure, because the disclosure does not contain any mechanism for distinguishing a non-circular disc from a circular disc. The apparatus can distinguish 8 cm discs from 12 cm discs, but is not capable of distinguishing circular discs from non-circular ones. This will be discussed in greater detail in the enablement rejection that follows.

Regarding claims 5-10:

Claim 5 is dependent on claim 1; claim 6 contains language similar to claim 1; and claims 7-10 are dependent on claim 6.

4. Claims 1 and 5-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 1:

The subject matter that is not enabled is "detecting the optical disc as a fashion disc type having a non-circular shape."

A fashion disc is defined in paragraph 5 of the specification as "having diameters of 8 cm and various shapes, such as a star, a flower, or a business card shape as shown in FIGS. 1B through 1D."

Applicant's apparatus is capable of detecting discs meeting this definition:

Applicant enables "detecting the optical disc as a fashion disc type." However, detecting that the disc has "a non-circular shape" is not enabled. The Examiner cannot find a mechanism anywhere in the specification for distinguishing a circular disc having a diameter of 8 cm from a non-circular disc having a diameter of 8 cm.

Applicant discloses three tests for detecting a fashion disc (see Fig. 3): (I) measuring the weight; (II) detecting the amount of data recording on the disc; and (III) detecting the focus error signal on the periphery of the disc.

With regards to (I):

The measurement of the weight is described in paragraph 25: it "distinguishes the type of the disc 200 between an 8 cm fashion disc and a 12 cm standard disc." Distinguishing between circular and non-circular discs is not disclosed.

With regards to (II):

This is described in paragraphs 30-32. Again, it distinguishes between an 8 cm and a 12 cm disc, but makes no mention of whether the disc is circular or non-circular.

With regards to (III):

This is described in paragraphs 33-37. Again, it distinguishes between an 8 cm and a 12 cm disc, but cannot determine whether the disc is circular or not.

Therefore, since the Applicant has not disclosed any means whatsoever for determining whether the disc has a non-circular shape, one of ordinary skill would be unable to make and/or use the invention without undue experimentation.

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In making this rejection, the Examiner has considered in particular the following factors:

(A) The state of the prior art:

The three tests relied upon by Applicant are known in the prior art: see, for example, Okamoto et al. (US 5,696,744). However, in the prior art, these tests are disclosed as a means for distinguishing between 8 cm circular discs and 12 cm circular discs. There is no disclosed ability to detect a disc as non-circular. If Applicant performs the same exact tests described in the prior art, how is it that Applicant's apparatus has an ability they do not?

(B) The amount of direction provided by the inventor:

The inventor has not provided any direction for detecting the shape of the disc, just its size,

Regarding claims 5-10:

Claim 5 is dependent on claim 1; claim 6 contains language similar to claim 1; and claims 7-10 are dependent on claim 6.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1 and 5-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1:

There are two problems with this claim.

First, regarding the “non-circular” shape:

The phrase “detecting the optical disc as a fashion disc type having a non-circular shape” is confusing, because it implies that Applicant is trying to claim an apparatus that is capable of distinguishing a non-circular fashion disc from a circular fashion disc. The 35 U.S.C. 112, first paragraph, rejections that precede this one are based upon the assumption that this is what Applicant means to claim.

However, it may be that Applicant is trying to claim an apparatus that detects an optical disc “as a fashion disc type having a non-circular shape” without actually testing to see whether the disc is circular or not. Possibly the apparatus determines whether it is 8 cm or 12 cm, and simply assumes it is non-circular if it is an 8 cm disc.

In that case, this claim does not distinctly claim the subject matter of the invention because it implies that the apparatus has a capability that it does not possess: the apparatus really only detects whether it is an 8 cm or a 12 cm disc, not whether it is non-circular or not.

Second, regarding the focus error:

The amended claim reads: “if the measured focus error is above a constant value, detecting the optical disc as a fashion disc...”

This is opposite the disclosure. In the specification, if the measured focus error is **above** a constant value, the optical disc is detected as a 12 cm disc. If the measured focus error is **below** the constant value, it is detected as a fashion disc. See paragraphs 36-37 of the specification.

Therefore this claim is rejected as not distinctly claiming the subject matter applicant regards as the invention: the invention is opposite the claim.

Regarding claims 5-10:

Claim 5 is dependent on claim 1, and additionally recites that the disc is identified as a 12 cm disc if the focus error is below a constant value, which is opposite the disclosure. Claims 6-10 contain language similar to claim(s) 1 and/or 5.

Response to Arguments

7. Applicant's arguments with respect to claims 1 and 5-10 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argued with the 35 USC 103 rejection of claims 1 and 5-10 as unpatentable over Okamoto et al. This rejection has been withdrawn, but not due to the arguments made by Applicant.

Instead, the Examiner notes that in Okamoto, a disc is identified as an 8 cm disc when the focus error is below a certain value, and as a 12 cm disc when the focus error is above a certain value. This is similar to Applicant's disclosed invention (see paragraphs 36-37).

However, Applicant's claimed invention is opposite their disclosed invention: a disc is identified as an 8 cm disc when the focus error is high, and as a 12 cm when the focus error is low. Therefore, even though the disclosed invention is similar to Okamoto, Okamoto cannot be used to reject the claims as written.

Applicant's arguments were directed at whether Okamoto detects a non-circular disc. The Examiner does not necessarily agree with this reasoning, but it is irrelevant since Okamoto already cannot be used to reject the claim.

Regardless, the point is moot due to the 35 USC 112 first and second paragraph rejections above.

Conclusion

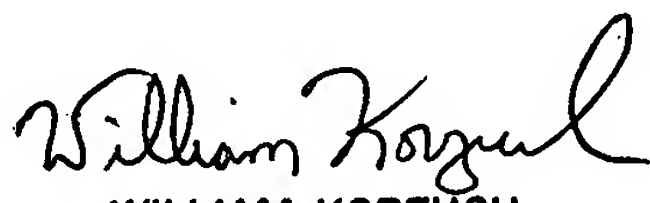
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ito (US 6,620,479) discloses a non-circular 8 cm disc.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lamb whose telephone number is (571) 272-5264. The examiner can normally be reached on 9:00 AM to 6:30 PM Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CRL 3/27/06


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